Hydrogen as an alternative fuel for domestic use

1113. SHRI RAMACHANDRA KHUNTIA: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether Government are exploring different aspects of Hydrogen, including its production, utilisation and storage as a fuel;

(b) if so, progress made in the matter so far; and

(c) by when Hydrogen is likely to be available as a safe alternative fuel for domestic use?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN): (a) Yes, Sir. The Ministry is implementing a broad based programme on different aspects of Hydrogen including its production, storage and utilisation as a fuel for various applications.

(b) and (c) As a result of the Research and Development projects supported by the Ministry's at various institutions, use of hydrogen has been demonstrated in two-wheelers, power generating units, catalytic burners and fuel cells for stationary, portable and vehicular applications. Hydrogen energy is at the research, development and demonstration stage. Widespread availability of hydrogen energy as an alternative fuel for domestic and other uses would depend on a number of factors, including cost, infrastructure, etc.

Installation capacity of wind energy

1114. SHRI K. RAMA MOHANA RAO: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether the Ministry is thinking of a comprehensive policy on the renewable energy to tap the country's wind energy;

(b) if so, the salient features of the proposed policy;

(c) the country's total potential in wind energy;

(d) the present installed capacity of wind energy in the country; State-wise; and

(e) the target set in the Tenth Five Year Plan?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN): (a) and (b) Yes, Sir. Ministry of Non-Conventional Energy Sources has prepared a draft Renewable Energy Policy Statement for accelerated development of renewable sources of energy, including wind energy. The draft Policy Statement envisages 10% of new power capacity addition, or 10,000 MW, to come from non-conventional energy soruces by 2010.

(c) The gross wind power potential in the country has been estimated at about 45,000 MW.

(d) A total wind power capacity of 1870 MW has so far been installed in the country. The State-wise break-up is given in the enclosed Statement (*see* below).

(e) Wind power capacity addition of 1500 MW is envisaged during the Tenth Plan period.

Statement

State-wise wind power installed capacity as on 31.03.2003

Sl. No.	State	Installed capacity (MW)
1.	Andhra Pradesh	92.6
2.	Gujarat	173.1
3.	Karnataka	124.3
4.	Kerala	2.0
5.	Madhya Pradesh	22.6
6.	Maharashtra	401.2
7.	Tamil Nadu	60.7
8.	Rajasthan	990.3
9.	West Bengal	1.1
10.	Others	1.6
	TOTAL:	**1869.5**